IRANIAN SOCIETY of CRYSTALLOGRAPHY and MINERALOGY

Vol. 23, No. 1, Spring 1394/2015

IRANIAN JOURNAL of CRYSTALLOGRAPHY and MINERALOGY

Mineralogy, geothermobarometry and determination of plutonic magmatic series east of Nabar (SW of Kashan)

S. Abbasi dehaghi[*1], S M. Tabatabai manesh[1], M. R. Irannezhadi[2]

1-Department of Geology, Faculty of Sciences, University of Isfahan
2- Department of Mining Engineering, Isfahan University of Technology

(Received: 2/7/2013, in revised form: 15/1/2014)

Abstract: The Nabar plutonic rocks is located in the northwest of Isfahan and in the Urumieh-Dokhtar magmatic belt. Based on the petrologic studies, the Nabar complex is composed of gabbro, gabbro-diorite, diorite, quartz diorite, tonalite and quartz monzonite. Mineral chemistry shows that pyroxenes are Na-poor in composition and are classified as clinopyroxenes and orthopyroxenes which are diopside and hypersthene. The composition of these minerals can be correlated to pyroxenes of calc-alkaline series. The composition of amphiboles plot in two groups of Fe-Mg-Mn amphiboles and calcic amphiboles. The plagioclase compositions are variable from oligoclase to bytownite in the analysed samples. Using Al barometry in hornblend, pressures of about 2 Kbar are estimated for the intrusive body.

Keywords: *plutonic magmatic series; mineral chemistry; calc-alraline; Urumieh-Dokhtar; Isfehan; Nabar.*

متن فارسی اصل مقاله از صفحه ۱۰۷ تا ۱۲۰ در این شماره به چاپ رسیده است.

*Corresponding author, Tel.: (0311) 4431904, E-mail: abasi.solmaz66@gmail.com

[Downloaded from ijcm.ir on 2024-10-12]